

This listing of claims will replace all prior versions and listing of claims in the above-identified application

Listing of Claims:

1 (Amended). A data communication system comprising:

a first network including a first network access node and a first plurality of nodes[, said first network having a first network address];

a second network including a second network access node and a second plurality of nodes[, said second network having a second network address]; and

means for forwarding, from said first network to said second network via a wireless internetwork path, message information received at said first network and addressed to a first wireless node of said first plurality of nodes when said first wireless node establishes communication with said second network wherein said wireless internetwork path includes one or more wireless connections involving at least one of said first plurality of nodes and at least one of said second plurality of nodes.

2 (Amended). The data communication system of claim 1 wherein said wireless internetwork path[means for forwarding] includes an internetworking node included within said first plurality of nodes and within said second plurality of nodes.

3 (Amended). The data communication system of claim 2 wherein said internetworking node includes:

means for receiving a first set of network information relating to said first network from said first plurality of nodes, said first set of network information identifying [a]said first network access [point]node [associated with said first network] wherein said message information is available from said first network access [point]node; and

means for transmitting, to one of said second plurality of nodes, said first set of network information and an identity of said internetworking node.

4 (Amended). The data communication system of claim 3 wherein said one of said second plurality of nodes includes means for broadcasting said first set of network information, said first wireless node including means for receiving said first set of network information broadcast by said one of said second plurality of nodes upon establishing communication with said second network.

Q 5 (Amended). The data communication system of claim 1 wherein said means for forwarding includes means for transmitting said message information over [a communication link between] one of said wireless connections[first plurality and one of said second plurality of nodes].

6 (Amended). A data communication system comprising:

a first network including a first plurality of wireless nodes, said first network having [a first network address and] a first network access [point]node for receiving message information directed to said first network;

a second network including a second network access node and a second plurality of wireless nodes[, said second network having a second network address]; and

an internetworking [means for] node configured to forward[forwarding at least a] portions of said message information addressed to one of said first plurality of wireless nodes via a wireless interconnection path from said first network access [point]node to said second network when said one of said first plurality of nodes establishes communication with said second network, said wireless internetwork path including one or more wireless connections involving at least one of said first plurality of wireless nodes and at least one of said second plurality of wireless nodes.

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7 (Amended). A data communication system comprising:

a first wireless network including a first network access node and a first plurality of wireless nodes, said first network access node providing [having] a first [network]IP address to a first wireless node of said first plurality of wireless nodes upon said first node joining said first wireless network;

a second network including a second plurality of wireless nodes[, said second network having a second network address]; and

means for forwarding, from said first wireless network to said second wireless network via a wireless internetwork path, message information received at said first wireless network and addressed to said first IP address[a first node of said first plurality of wireless nodes] when said first wireless node establishes communication with said second wireless network wherein said wireless internetwork path includes a wireless connection between at least one of said first plurality of wireless nodes and at least one of said second plurality of wireless nodes and is defined based at least in part upon a connectivity advertisement broadcast by one of said second plurality of wireless nodes.

8 (Amended). The data communication system of claim 7 wherein said [means for forwarding]wireless internetwork path includes an internetworking node included within said first plurality of wireless nodes and within said second plurality of wireless nodes.

9 (New). The data communication system of claim 7 wherein said first wireless node is configured to determine said wireless internetwork path based upon said connectivity advertisement and an additional connectivity advertisement broadcast by one of said first plurality of wireless nodes.

10 (New). The data communication system of claim 1 wherein said first wireless node is configured to determine said wireless internetwork path based upon said connectivity advertisement and an additional connectivity advertisement broadcast by one of said second plurality of wireless nodes.

11 (New). A method of data communication comprising:

broadcasting, from a first node of a first plurality of nodes included within a first wireless network, a connectivity advertisement identifying its address and one or more additional addresses corresponding to other of said first plurality of nodes;

determining a wireless internetwork path based at least in part upon said connectivity advertisement, said wireless internetwork path including one or more wireless connections involving at least one of said first plurality of nodes and at least one of said second plurality of nodes; and

forwarding, from said first network to said second network via said wireless internetwork path, message information received at said first network and addressed to said first node when said first node establishes communication with said second network.

12 (New). The method of claim 11 further including:

receiving, at an internetworking node included within said first plurality of nodes and said one or more nodes of said second wireless network, a first set of network information relating to said first network from said first plurality of nodes, said first set of network information identifying a first network access point associated with said first network wherein said message information is available from said first network access point; and

transmitting, to one of said one or more nodes of said second wireless network, said first set of network information and an identity of said internetworking node.

13 (New). The method of claim 12 further including broadcasting, from said one of said second plurality of nodes, said first set of network information and receiving, at said first node, said first set of network information broadcast by said one of said second plurality of nodes upon establishing communication with said second network.

14 (New). A method for data communication comprising:

receiving, at a first wireless node of a first plurality of wireless nodes of a first wireless network, a first IP address upon association of said first wireless node with said first wireless network;

terminating, at said first wireless node, a first network connection with said first wireless network and establishing a second network connection with said second wireless network upon determining at said first wireless node that signal strength over said first network connection has become less than a minimum threshold;

defining, at said first wireless node, a wireless internetwork path including one or more wireless connections involving at least one of said first plurality of wireless nodes and at least one of said second plurality of wireless nodes; and

receiving, at said first wireless node, message information forwarded from said first wireless network to said second wireless network via said wireless internetwork path, said message information being previously received at said first wireless network and addressed to said first IP address.

15 (New). The method of claim 14 wherein said defining is based at least in part upon a connectivity advertisement broadcast by one of said second plurality of wireless nodes.

16 (New). The method of claim 15 wherein said defining is further based upon an additional connectivity advertisement broadcast by one of said first plurality of wireless nodes.